

Remarks

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson et al (US 5,746,493) in view of Stephenson (US 6,006,118) and
5 Hiramoto et al (US 5,847,783). Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Stephenson and Hiramoto, and further in view of Sato et al (US 5,351,143).

1. Rejection of claims 1-5 and 7-10 under 35 U.S.C. 103(a):

10 Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson et al (US 5,746,493) in view of Stephenson (US 6,006,118) and Hiramoto et al (US 5,847,783) for reasons of record, as recited on pages 2-4 of the above-indicated Office action (part of paper no.010904).

15 **Response:**

The present invention according to claims 1 and 7 teach that electronic components 42 mounted on a PCB 38 are electrically connected to a ground pad 46 for grounding the electronic components 42. A metallic shield 36 is also electrically connected to the ground pad 46 via conductive material such as the
20 conductive sponge 44. Therefore, the electronic components 42 and the metallic shield 36 are each electrically connected to a common ground, which is the ground pad 46.

As the Examiner states in the above-mentioned Office action, "Jonsson as
25 modified by Stephen fail to specifically disclose that the ground pad is electrically connected to the electronic components and an electrically conductive material is electrically connected to the ground pad." The Examiner goes on to say, "Hiramoto teaches that a transparent conductive sheet 22 of the LCD is connected to ground. The conductive sheet is attached to the printed
30 circuit board, which includes electronic components (col. 5, lines 55+). Therefore, the ground is connected to the electronic components in an indirect manner through the conductive material."

However, upon closer inspection of col.5, lines 57-67 of Hiramoto, the Applicant has noticed a significant difference that can be seen between Hiramoto and the present invention according to claims 1 and 7. Hiramoto teaches that a transparent conductive sheet 22 is connected to ground, and is attached to the rear surface of the LCD panel 1. However, Hiramoto next states that the **printed circuit board 9 (containing electronic components) is attached to the conductive sheet 22 via adhesives 8 and 16**. Hiramoto does not teach that the PCB 9 is electrically connected to the conductive sheet 22, only that the PCB 9 is attached to the conductive sheet 22 with adhesives. The adhesive connection between the PCB 9 and the conductive sheet 22 does not provide any electrical connection between the PCB 9 and the conductive sheet 22. Therefore, the electronic components on the PCB 9 are not electrically connected to a common ground with the conductive sheet 22.

This is in contrast to the limitations of claim 1 and claim 7, which state that the ground pad is electrically connected to the electronic components, and that the metallic shield is electrically connected to the ground pad through conductive material. Thus, the electronic components are electrically connected to the same ground pad as the metallic shield.

Sato et al (US 5,351,143) does not teach or suggest any connection to ground, and therefore does not teach or suggest that a metallic shield is connected to a same ground pad as the electric components.

The Applicant has also inspected the Asuma et al. (6,275,279) and Hasegawa et al (5,805,249) prior art patents that the Examiner has made of record. As can be seen in Fig.13 of Asuma and in Fig.1 of Hasegawa, the metallic shield (SHD) is not disposed between the LCD panel (PNL) and the PCBs. Therefore, neither of these patents could be combined with the Jonsson, Stephenson, or Hiramoto prior art patents because neither Asuma nor Hasegawa teach a structure that can be used for the purpose of shielding the LCD panel

from electromagnetic radiation coming from electronic devices on the PCBs, as is taught in claims 1 and 7 of the instant application.

In conclusion, none of the prior art cited by the examiner, individually or in combination, teach that the ground pad is electrically connected to the electronic components, and that the metallic shield is electrically connected to the ground pad through conductive material. Therefore, the present invention according to claims 1 and 7 cannot be unpatentable over the cited prior art. Reconsideration of claims 1-5 and 7-10 is respectfully requested.

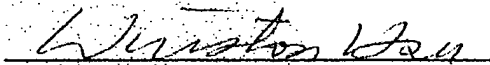
2. Rejection of claims 6 and 11 under 35 U.S.C. 103(a):

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonsson in view of Stephenson and Hiramoto, and further in view of Sato et al (US 5,351,143) for reasons of record, as recited on pages 4-5 of the above-indicated Office action (part of paper no.010904).

Response:

Claims 6 and 11 are dependent on base claims 1 and 7, and should be allowed if claims 1 and 7 are allowed. Reconsideration of claims 6 and 11 is respectfully requested.

Sincerely,



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